

ABSTRACT OF THE DISCLOSURE

A thermoplastic multi-layer composite structure is disclosed and in a first embodiment as a co-extruded acrylic polypropylene outer skin and high melt strength polypropylene substrate which is attracted to a first surface of a polypropylene foam core. An inner polypropylene skin is attached to a second surface of the foamed core, which can either be constructed from an expanded polypropylene or an extruded polypropylene and is attached to the outer and inner skin through the use of an adhesive. Where an extruded polypropylene foam core is provided, the skins can be attached to the foam core by adhesives or through a welding or bonding process in lieu of adhesives. Additionally, the extruded foam core can vary in density to provide a composite foam core. An all acrylic composite multi-layered structure is also provided.